

No. Pages : 9

~~TOP SECRET~~

COPY NO.: 45

PHOTOGRAPHIC INTELLIGENCE MEMORANDUM

THERMOTECHNICAL LABORATORY

(LAB III)

MOSCOW USSR  
[REDACTED]



Declass Review by  
NIMA/DOD

HTA/M-29/58

NOVEMBER 1958

DOCUMENT NO. 17

NO CHANGE IN CLASS. LI

DECLASSIFIED

CLASS. CHANGED TO: TS (S) C-2012

NEXT REVIEW DATE:

AUTH: HR 70-262

DATE: 070602 REVIEWER: 8638/4

WARNING: HANDLE VIA TALENT CONTROL CHANNELS ONLY

CENTRAL INTELLIGENCE AGENCY

PHOTOGRAPHIC INTELLIGENCE CENTER

This document contains information usable only within the TALENT CONTROL SYSTEM. It is to be seen on a MUST-KNOW BASIS ONLY BY PERSONNEL ESPECIALLY INDOCTRINATED AND AUTHORIZED. Reproduction is prohibited unless approved by the originator.

~~TOP SECRET~~

TALENT

**W A R N I N G**

This material contains information affecting the National Defense of the United States within the meaning of the espionage laws, Title 18, USC, Secs. 793 and 794, the transmission or revelation of which in any manner to an unauthorized person is prohibited by law.

THERMOTECHNICAL LABORATORY

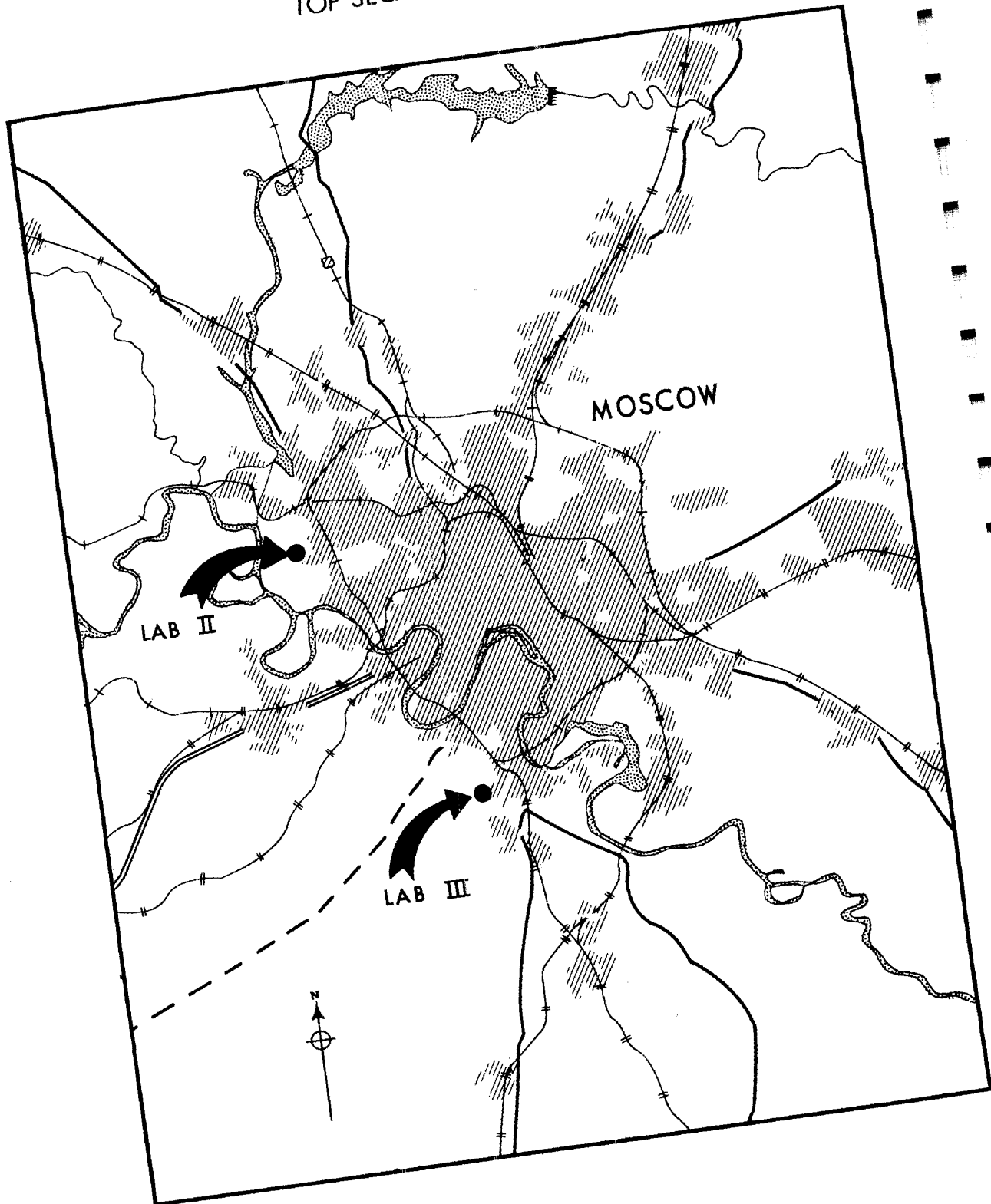
(LAB III)

MOSCOW, USSR

HTA/M-29/58

November 1958

TOP SECRET CHESS



TOP SECRET CHESS

HTA/M-29/58

THERMOTECHNICAL LABORATORY  
(LAB III)  
MOSCOW, USSR

I. INTRODUCTION

The Thermotechnical Laboratory is located in the southwest portion of Moscow a quarter of a mile northeast of Cheremushki and just to the southeast of the Moscow State University buildings. It is also known as Special Laboratory No. 3 or "Lab III", by which it will be designated throughout this memorandum. A location map on the opposite page points out the position of Lab III within the Moscow complex at 55°40' N/37°35' E and distinguishes its location from that of Lab II farther to the north. (For information on Lab II see CIA/HTA/M-14/58).

Lab III is a nuclear research institute of the Soviet Academy of Sciences. It is important for its broad research program in the fields of reactor and accelerator design, radiation chemistry, instrument design and new techniques, mass spectroscopy, nuclear spectroscopy, cosmic rays, and theoretical problems. 1/

II. GENERAL DESCRIPTION

25X1D Lab III is situated in a wooded, park-like area which was once the palace estate of Count Menshikov. 2/ This irregularly-shaped area measures approximately 2,500 by 2,800 feet over-all and covers about 80 acres. It appears on photography of [REDACTED] and also on photography of [REDACTED] Only eight of the 40 buildings present in [REDACTED] were there at the time of the World War II coverage. The quality of the photography permits only a limited description of the buildings, but the key structures of the installation can be identified and are discussed in this report. 25X1D 25X1D

Security measures at Lab III appear to be rather limited. They include a perimeter fence surrounding the laboratory grounds and a gate security building at the main entrance on the north side. Several scientists including some from the United States have been permitted to visit Lab III. It is

TOP SECRET CHESS

quite possible then, as suggested in one report, 3/ that security is not a major factor here.

Lab III is served by road transportation only, with entrances at the north and at the south. Within the area itself there is a network of roads and paths which connect the various facilities. The elaborate nature of these roads with their fancy circles and landscaping indicates an attempt to make this laboratory an attractive showpiece for visiting scientists such as those who attended the conference on the "Peaceful Use of Atomic Energy" in July 1955.

### III. KEY STRUCTURES

The building layout at Lab III is shown by the plan view on page 7, with building types and dimensions given in Table 1. The main building at Lab III is the old palace (Bldg. 11). It is a rather ornate building with a cupola on top and porticoes at the front and rear entrances. This building has two stories with adjacent one-story wings on both sides. The over-all measurements are 125 by 60 feet.

There are two buildings of post World War II construction that appear to be laboratory buildings, where studies are reportedly conducted in such things as reactor and accelerator design and cosmic ray research. 4/ One of these probable labs is an L-shaped, hip-roofed, multistory building (Bldg. 7). Its two wings measure 140 by 50 and 105 by 50 feet. Another probable lab (Bldg. 14) is a hip-roofed, U-shaped structure with a prominent entrance wing at the front. The over-all dimensions of this multistory building are 215 by 90 feet.

A significant appearing building (No. 5) is located about 800 feet northeast of the palace. It measures approximately 125 by 115 by 30 feet high and has a slightly-pitched metal roof. The location and description of this building correspond favorably with the location and description of the building housing the reactor described in collateral reports. 1/ 5/ The reactor was reportedly built in 1949, and was said to be the first heavy water-moderated reactor in the Soviet Union.

TOP SECRET CHESS

HTA/M-29/58

About 400 feet northwest of the probable reactor building is a monitor-roofed building measuring 115 by 85 feet (Bldg. 1). It appears to be industrial rather than institutional in design and is probably associated with experimentation rather than pure research.

There is an area of construction activity (see Figure 1 and No. 25, Figure 2) about 1000 feet south of the old palace building. It consists of two concentric circles [REDACTED] in diameter. These are believed to be the concrete foundations for the seven billion electron-volt (7 BEV) proton synchrotron accelerator which was reported to be under construction

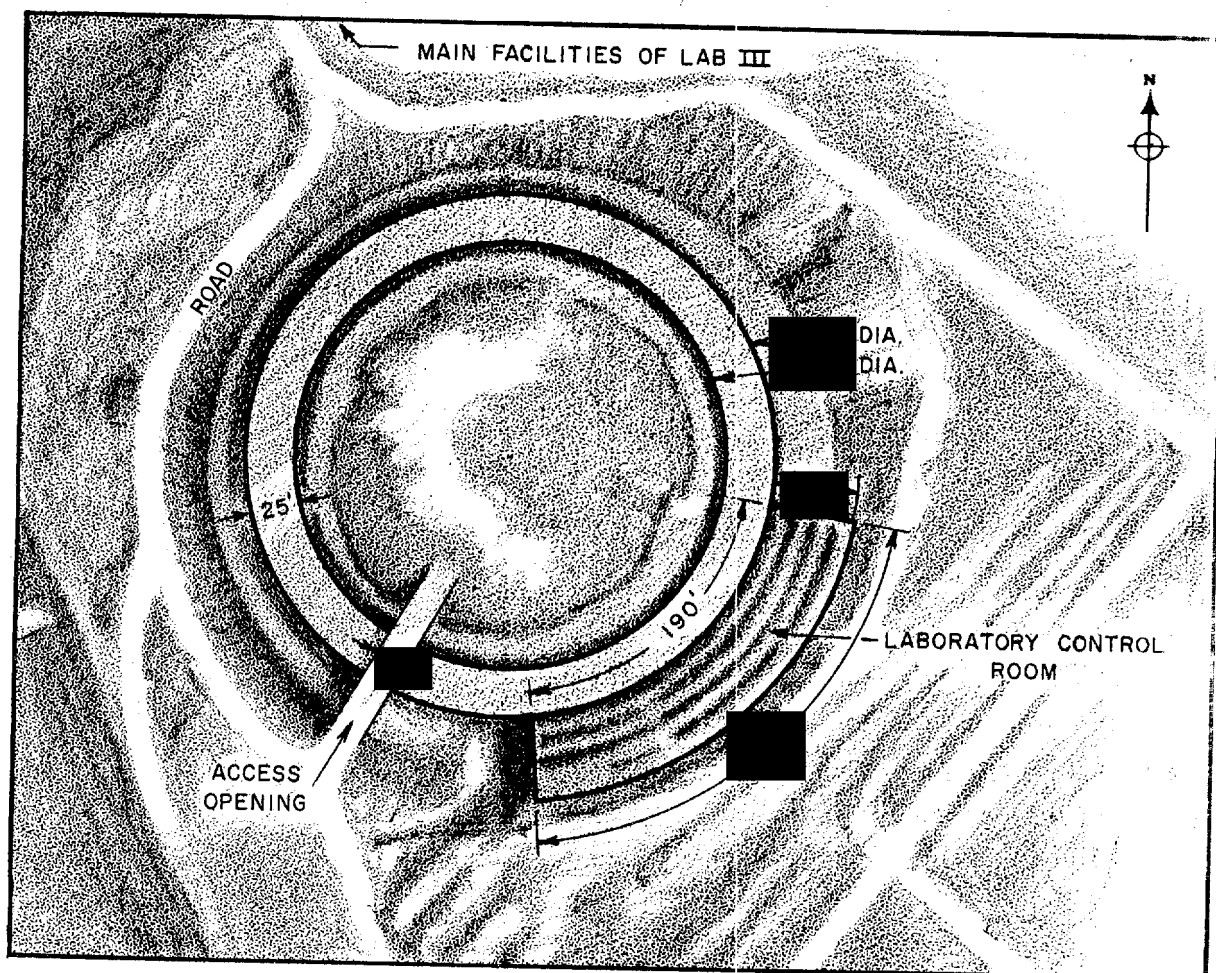


Fig. 1 Plan view of probable 7 BEV proton synchrotron accelerator under construction

TOP SECRET CHESS

25X1D in [REDACTED] and operational sometime in [REDACTED] 1/ 4/ 6/ 7/ 8/ The diameter of this accelerator was to be 80 meters [REDACTED] A curved section along the southeast portion of the outer circle extends out [REDACTED] from the circle and appears to be divided into four parts. The inner arc of this section is 190 feet long while the outer arc measures [REDACTED] This section appears to be in the early phases of construction and is believed to be the laboratory control room for the accelerator. The layout of this 7 BEV accelerator is basically the same as that of the 6.2 BEV Bevatron of the [REDACTED]

25X1D Several reports mention a conventional cyclotron at Lab III. 3/ 4/ 9/ Interior photos taken in [REDACTED] appear to substantiate the existence of a relatively small cyclotron which could be easily contained in any of several buildings. However, its actual location cannot be determined from photography.

#### IV. HOUSING AND SUPPORT AREAS

25X1D The housing area for Lab III personnel is located 1000 feet east of the old palace. This includes 15 single-story dwellings (Bldgs. at 12 and Bldg. 20), each approximately 35 by 20 feet. In addition to these there is a hip-roofed building (Bldg. 18) located 600 feet south of the palace and across the lake from the U-shaped laboratory building. This could be the site described in one report 4/ as the residence of the director of Lab III, A. I. Alikhanov.

Just southwest of the housing area there are several buildings (Bldg. Nos. 20 through 24) which house support functions for the installation. These are mainly storage and maintenance type buildings, and their dimensions are reflected in Table 1 on pages 7 and 8.

TOP SECRET CHESS



HTA/M-29/58

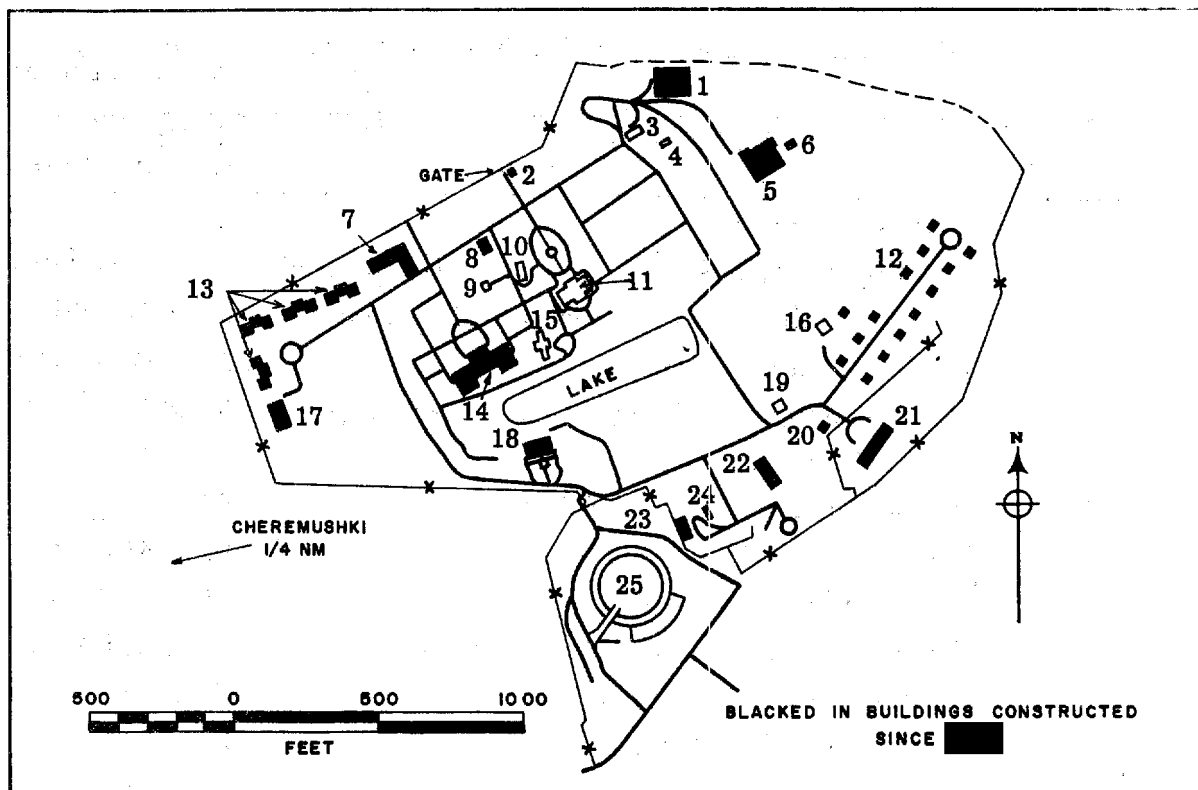


Fig. 2 Annotated line drawing of Lab III from [REDACTED] photography

TABLE 1. BUILDING TYPES AND DIMENSIONS

Building No.	Description	Overall Dimensions (feet)
1	Monitor-roofed building	115 x 85
2	Gate security building	45 x 30
3	Unidentified building	65 x 25
4	Small shack	20 x 15
5	Probable reactor building	125 x 115
6	Small unidentified structure	40 x 30
7	Probable laboratory (L-shaped)	140 x 50 and 105 x 50
8	Unidentified building	60 x 40
9	Unidentified building	50 x 30
10	Unidentified building	90 x 55

TOP SECRET CHSS

TABLE 1. BUILDING TYPES AND DIMENSIONS (CONT'D)

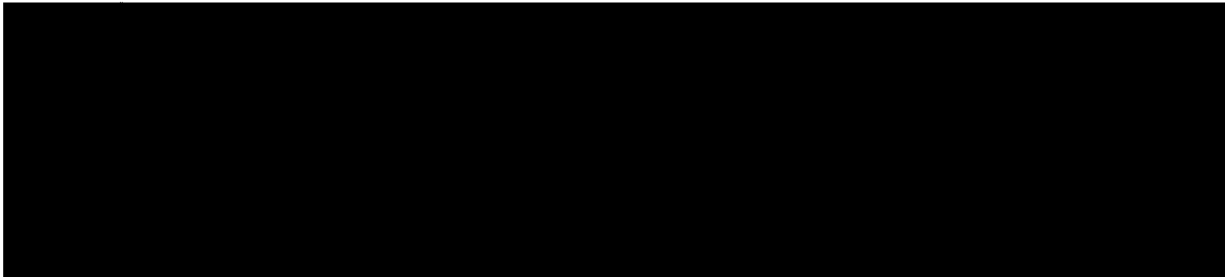
Building No.	Description	Overall Dimensions (feet)
11	Former palace	125 x 60
12	Housing area; 14 single-story dwellings, each	40 x 25
13	Four possible classroom buildings, each	125 x 60
14	Probable laboratory	215 x 90
15	Cross-shaped building with cupola on top	130 x 100
16	Possible barn	65 x 45
17	Probable hip-roofed building	90 x 50
18	Hip-roofed building	95 x 45
19	Unidentified structure	55 x 55
20	Probable single-story dwelling	40 x 25
21	Gable-roofed storage building	170 x 45
22	Gable-roofed building	120 x 40
23	Gable-roofed building	80 x 35
24	Shed	45 x 20
25	Accelerator construction	- - -

TOP SECRET CHSS

HTA/M-29/58

REQUIREMENT: Prepared in answer to HTA/SI/R-37/58 requesting analysis of physical characteristics and possible function of structures and facilities of Laboratory III.

25X1D



SOURCE REFERENCES:

1. CIA. [REDACTED] Oct 57. (S)
2. USSR. Podmoskov'ye Pamyatnyye-Mesta V Istorii Russkoy Kul'tury, Moscow 1955, Pages 276-277. (U)
3. CIA. [REDACTED] Nov-Dec 57. (S)
4. CIA. [REDACTED] May 56. (C)
5. CIA. [REDACTED], 1947-1949. (C)
6. CIA. [REDACTED] Nov 57. (C)
7. CIA. [REDACTED] Jul 57. (S)
8. CIA. [REDACTED] Aug 56. (U)
9. CIA. [REDACTED] Oct 56. (U)

B. E. NUMBER: [REDACTED]

~~TOP SECRET~~ Approved For Release 2001/09/07 : CIA-RDP78T04753A000400010048-7

T  
A  
L  
L  
E  
N  
T

~~TOP SECRET~~

Approved For Release 2001/09/07 : CIA-RDP78T04753A000400010048-7